

CLAIMS:

What is claimed is:

1. A method of conveying information about a Voice Over Internet Protocol (VoIP) network to a user comprising:
 - discovering a plurality of nodes on the VoIP network, the plurality of nodes including a plurality of media aggregation managers that provide application/protocol specific multiplexing/demultiplexing of media traffic onto a preallocated reservation protocol session; and
 - graphically depicting representations of the plurality of nodes and their interconnections on a network map, wherein the representations of the plurality of media aggregation managers are visually distinguishable from the remainder of the plurality of nodes.
2. The method of claim 1, further comprising displaying a plurality of physical paths that are available for exchanging media packets between a selected pair of media aggregation managers of the plurality of media aggregation managers.
3. The method of claim 2, wherein the plurality of physical paths are prioritized in terms of their relative desirability for serving as the path over which media packets will be transferred between the first and second media aggregation managers.
4. A method of allowing a user to interactively explore how changes in path selection between media aggregation managers affects projected link utilization in a network comprising:

4 displaying graphical representations of a first media aggregation manager and a second
5 media aggregation manager, the first and second media aggregation managers
6 serving as reservation session aggregation points between a first user community
7 and a second user community and having a plurality of physical paths through
8 which media packets may be exchanged by way of one or more packet forwarding
9 devices;

10 displaying a first projected link utilization based upon an indication that a first path of the
11 plurality of physical paths will be used to convey media packets between the first
12 and second media aggregation managers; and

13 displaying a second projected link utilization based upon an indication that a second path
14 of the plurality of physical paths will be used to convey media packets between
15 the first and second media aggregation managers.

1 5. The method of claim 2, further comprising overlaying a selected path of the plurality of
2 physical paths onto existing bandwidth allocations to determine a projected link
3 utilization associated with the selected path.

1 6. A method comprising:
2 in response to a discovery request, discovering nodes on a network;
3 identifying and graphically displaying the nodes and their interconnections on a map;
4 receiving inputs including a first node, a second node and a projected bandwidth traffic
5 between the first node and the second node; and
6 displaying a projected bandwidth utilization for the nodes that accounts for the increase
7 in bandwidth utilization caused by the projected bandwidth traffic for a schedule.

6 displaying a prioritized plurality of paths between the first media aggregation manager
7 and the second media aggregation manager that satisfy the projected utilization;
8 and
9 receiving a fourth input indicating a selected path of the plurality of paths.

1 13. The method of Claim 12 further comprising a control initializing an allocation of
2 bandwidth between the first media aggregation manager and the second media
3 aggregation manager.

1 14. The method of claim 13 wherein the allocation of bandwidth comprises a provisioning of
2 plurality of routers between the first media aggregation manager and the second media
3 aggregation manager.

1 15. The method of claim 14 wherein the provisioning of the plurality of routers includes
2 instructions that force media to route through the plurality of routers when being
3 communicated from a first community of residents utilizing the first media aggregation
4 manager to a second community of residents utilizing the second media aggregation
5 manager.

1 16. The Method of Claim 12 further comprising an analysis control for receiving an input
2 indicating the initiation of analysis of the first path.

1 17. The method of Claim 12 further comprising:
2 receiving a fifth input indicating a node on the selected path; and
3 displaying a schedule projecting bandwidth utilization for the node.

1 23. The machine-readable medium of claim 22, wherein the plurality of physical paths are
2 prioritized in terms of their relative desirability for serving as the path over which media
3 packets will be transferred between the first and second media aggregation managers.

1 24. A machine-readable medium having stored thereon data representing sequences of
2 instructions which, when executed by a processor, cause the processor to:
3 display graphical representations of a first media aggregation manager and a second
4 media aggregation manager, the first and second media aggregation managers
5 serving as reservation session aggregation points between a first user community
6 and a second user community and having a plurality of physical paths through
7 which media packets may be exchanged by way of one or more packet forwarding
8 devices;
9 display a first projected link utilization based upon an indication that a first path of the
10 plurality of physical paths will be used to convey media packets between the first
11 and second media aggregation managers; and
12 display a second projected link utilization based upon an indication that a second path of
13 the plurality of physical paths will be used to convey media packets between the
14 first and second media aggregation managers.

1 25. The machine-readable medium method of claim 24, further comprising instructions to
2 overlay a selected path of the plurality of physical paths onto existing bandwidth
3 allocations to determine a projected link utilization associated with the selected path.

1 26. A machine-readable medium having stored thereon data representing sequences of
2 instructions which, when executed by a processor, cause the processor to:
3 discover nodes on a network in response to a discovery request;

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4 identify and graphically display the nodes and their interconnections on a map;
5 receive inputs including a first node, a second node and an input means for indicating a
6 projected bandwidth traffic requirements between the first node and the second
7 node; and
8 display the projected bandwidth traffic requirements for the nodes.

1 27. The machine-readable medium of claim 26 wherein the nodes include at least one media
2 aggregation manager.

1 28. The machine-readable medium of claim 26 further comprising instructions to display a
2 plurality of paths between the first node and the second node.

1 29. The machine-readable medium of claim 28 wherein the plurality of paths between the
2 first node and the second node are prioritized by a criteria.

1 30. A machine-readable medium having stored thereon data representing sequences of
2 instructions which, when executed by a processor, cause the processor to:
3 display a first portion that graphically depicts and identifies a plurality of nodes on a
4 network, wherein the plurality of nodes includes a plurality of media aggregation
5 managers that provide application/protocol specific multiplexing/demultiplexing
6 of media traffic onto a preallocated reservation protocol session, and wherein the
7 plurality of media aggregation managers are distinguishable from other nodes on
8 the network.

1 31. The machine-readable medium of claim 30 further comprising instructions to display a
2 table that identifies characteristics of a selected node.

receive a fifth input indicating a node on the selected path; and

display a schedule projecting bandwidth utilization for the node.

38. A machine-readable medium having stored thereon data representing sequences of instructions which, when executed by a processor, cause the processor to:

substantially simultaneously provision a plurality of routers to force a media to travel from a first media aggregation manager through the plurality of routers and to a second media aggregation manager.

39. A machine-readable medium having stored thereon data representing sequences of instructions which, when executed by a processor, cause the processor to:

provision a plurality of routers according to a path selected by a user over which reservation protocol session packets are forced to travel.

40. The machine-readable medium of claim 39 wherein the path includes an endpoint wherein the endpoint is a media aggregation manager.